



(B)

Amino acid positions	1	1	1	1	2	2	2	3
H	6	6	7	7	9	2	2	1
	2	8	7	9	1	2	6	7
8676	.	.	.	.	.	.	.	.
8684_A1	.	.	.	.	.	.	.	.
8684_A2	I	G	S	F	F	I	F	I
9317	I	G	S	F	F	I	F	I
9334_A1	I	.	.	.	.	I	F	I
9334_A2	I	G	S	F	F	I	F	I
9354	I	G	S	F	F	I	F	I
9355	.	.	.	.	.	.	.	.
9379	I	G	S	F	F	I	F	I
9380	I	G	S	F	F	I	F	I

Katonga

Katavi

Kitilda/Rukwa

Muzu

**Figure S4**

Amino acid alignment of LWS from river species. Residue positions are numbered according to the sequences of LWS. The dots and letters indicate identical and different residues, respectively, compared with the top line. The LWS sequences were determined from four riverine species: *H. sp. 'katonga'* (n = 2), *H. sp. 'katavi'* (n = 1), *H. sp. 'kitilda-rukwa'* (n = 2), and *H. sp. 'muzu-rukwa'* (n = 3).